

AMENDMENT UNDER 37 C.F.R. § 1.114(c)
U.S. Application No. 10/066,651
Attorney Docket No. Q64314

REMARKS

Reconsideration and allowance of this application, as amended, are respectfully requested. Claims 1, 10 and 15 have been amended. Claims 32, 34 and 35 have been canceled. Claims 1, 2, 4-17, 19-22, 28-31, 33 and 36 are now pending in the application. The rejections are respectfully submitted to be obviated in view of the remarks presented herein.

Rejection Under 35 U.S.C. § 102(e) - Massoudi

Claims 1 and 10 are rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Massoudi (U.S. Patent Number 6,363,511). The rejection is respectfully traversed.

Regarding independent claims 1 and 10, the claimed invention relates to a decoder comprising a storing part, a control part, a first RS core for calculating a first error location and a first error value from data read from the storing part, and a second RS core for calculating a second error location and a second error value from data read from the storing part. The control part alternately enables the first RS core and the second RS core to correct the error and update the data.

Turning to the cited art, the disclosure of Massoudi does not anticipate the claimed invention. Massoudi describes a device for detecting and correcting errors in error correction coded data blocks read sequentially from a DVD medium. As shown in Figure 6, Massoudi's error detection and correction circuitry includes on-the-fly row correction circuitry 410, correction control circuitry 606, correction engine 608 and correction circuitry 602. However, Massoudi does not teach or suggest any RS cores which are alternately enabled by a control part

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to correct the error and update the data, as claimed. This element is explicitly recited in Applicant's claims. At least by virtue of the aforementioned differences, the invention defined by claims 1 and 10 is patentable over Massoudi. Reconsideration and withdrawal of the rejection under 35 U.S.C. § 102(e) are respectfully requested.

Rejection Under 35 U.S.C. § 102(e) - Fujita et al.

Claims 15 and 16 are rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Fujita et al. (U.S. Patent Number 6,131,178; hereinafter “Fujita”). The rejection is respectfully traversed.

Regarding independent claim 15, the claimed invention relates to a decoding method comprising reading data to be decoded and an eraser flag, calculating an error location and an error value from the read data, correcting an error of the data according to the calculated error location and error value, and decoding the data. The calculation step comprises a first calculation step for calculating a first error location and a first error value from the read data, and a second calculation step for calculating a second error location and a second error value from the read data. Furthermore, the first calculation step and the second calculation step are alternately performed to correct the error and update the data.

Turning to the cited art, the disclosure of Fujita does not anticipate the claimed invention. Fujita describes an error correction apparatus for singly extended Reed-Solomon code or double extended Reed-Solomon code. There is no teaching or suggestion in Fujita of alternately performing first and second calculation steps to correct the error and update the data, as claimed. At least by virtue of the aforementioned differences, the invention defined by claim 15 is

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patentable over Fujita. Claim 16 is a dependent claim including all of the elements of independent claim 15, which, as established above, is patentable over Fujita. Therefore, claim 16 is patentable over Fujita for at least the aforementioned reasons as well as for its additionally recited features. Reconsideration and withdrawal of the rejection under 35 U.S.C. § 102(e) are respectfully requested.

Rejection Under 35 U.S.C. § 103(a) - Massoudi in view of Fujita et al.

Claims 4-9, 11-14, 28 and 29 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Massoudi in view of Fujita. The rejection is respectfully traversed.

Referring to amended independent claims 1 and 10, the claimed decoder comprises a first RS core as well as a second RS core, each calculating respective error location/values from data read from the storing part. A control part alternately enables the first RS core and the second RS core to correct the error and update the data. Neither Massoudi nor Fujita disclose any RS cores which are alternately enabled by a control part to correct the error and update the data, as claimed.

At least by virtue of the aforementioned differences, the invention defined by independent claims 1 and 10 is patentable over Massoudi in view of Fujita. Claims {4-9} and {11-14, 28 and 29} are dependent claims including all of the elements of independent claims 1 and 10, respectively, which, as established above, is patentable over Massoudi in view of Fujita. Therefore, claims 4-9, 11-14, 28 and 29 are patentable over Massoudi in view of Fujita for at least the aforementioned reasons as well as for their additionally recited features.

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Reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a) are respectfully requested.

Rejection Under 35 U.S.C. § 103(a) - Fujita et al. in view of Massoudi

Claims 19-22 and 30 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Fujita in view of Massoudi. The rejection is respectfully traversed.

Regarding amended independent claim 15, the claimed decoder comprises both a first calculation step for calculating a first error location and a first error value from the read data, and a second calculation step for calculating a second error location and a second error value from the read data. The first calculation step and the second calculation step are alternately performed to correct the error and update the data.

Turning to the cited art, neither Fujita nor Massoudi teach or suggest alternately performing first and second calculation steps to correct the error and update the data, as claimed. At least by virtue of the aforementioned differences, the invention defined by independent claim 15 is patentable over Fujita in view of Massoudi. Claims 19-22 and 30 are dependent claims including all of the limitations of independent claim 15, which, as established above, is patentable over Fujita in view of Massoudi. Therefore, claims 19-22 and 30 are patentable over Fujita in view of Massoudi for at least the aforementioned reasons as well as for their additionally recited features. Reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a) are respectfully requested.

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With further regard to claim 19, neither Fujita nor Massoudi even mention a calculation step as Applicant claims, in which an eraser location polynomial calculation step calculates an eraser location polynomial from the read eraser flag, a first syndrome polynomial calculation step calculates a first syndrome polynomial from the read data, a first errata location polynomial calculation step calculates a first errata location polynomial from the calculated eraser location polynomial and the first syndrome polynomial, and outputs the first errata location polynomial and the delayed first syndrome polynomial, and a first error location/value calculation step calculates a first error flag, a first error location and a first error value from the first errata location polynomial and the delayed first syndrome polynomial. At least by virtue of this additional difference as well as the aforementioned differences, Applicant's claimed invention distinguishes over Fujita in view of Massoudi.

Allowable Claims 31, 33 and 36

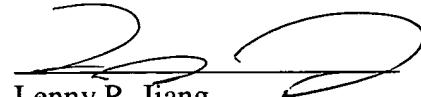
Regarding claims 31, 33 and 36, claims 31, 33 and 36 are allowable over the cited references based on at least their dependencies as well as for their additionally recited features. That is, the cited references do not teach or suggest a number "m" which may be appropriately determined according to a data representation method and which represents an amount of data, as recited in claims 31, 33 and 36.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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Respectfully submitted,



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